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HERPETOLOGY.—*Notes on a collection of reptiles and amphibians from the Isthmus of Tehuantepec, Oaxaca.*¹ HOBART M. SMITH AND DAVE A. LANGEBARTEL, University of Illinois. (Communicated by HERBERT FRIEDMANN.)

During late 1948 and early 1949, Thomas MacDougall, aided by a number of local residents of Tehuantepec, secured a series of 40 unusually noteworthy specimens of reptiles and amphibians in the vicinity of the Isthmus of Tehuantepec. These are now in the Museum of Natural History of the University of Illinois, to which all specimen numbers cited in the following discussion refer. We are much indebted to Mr. MacDougall for his kindness in accumulating this material under difficult circumstances and for providing detailed information regarding habitats and localities.

Especially noteworthy in this collection of 21 species are a new species of *Ficimia* and another of *Rhadinaca*, two new State records (*Leiopisma cherriei stuarti* and *Coniophanes fissidens fissidens*), and two aberrant specimens of *Pliocercus e. clapoideus* and *Micrurus ephippifer*. All these except the last were obtained in the little-explored area north of Nilttepec. If, as was the case, six specimens from this region proved to be of such novel interest, the area must be one that would

well repay more intensive exploration. It is unfortunate that the area is so difficult of access.

Localities from which the specimens were taken, all within the state of Oaxaca, are not all readily found on maps generally available. The following list is given of those not on the American Geographical Society's 1938 map of the area, scale 1:1,000,000 (distances straight-line, unless otherwise stated):

CERRO CALDERONA: 3 miles north-northeast of Matias, about 13 (15 by trail) miles west-northwest of Tehuantepec; north of Cerro San Pedro.

RANCHERÍA SANTA LUCÍA: About 15 (20 by trail) miles west-southwest by west of Tehuantepec.

ESCURANO: Lower slopes of Cerro San Pedro, about 15 miles west-northwest of Tehuantepec.

LA GLORIA: 30 miles north of Nilttepec; about 50 miles northeast of Tehuantepec.

NISABIBI: 2 miles west of Yerba Santa near foot of Cerro San Pedro.

PORTILLO GUAYABO: 16 miles due west of Tehuantepec.

RÍO GRANDE: 15 miles north of Nilttepec, and 1-2 miles downstream from Searces; 50 miles northeast of Tehuantepec.

SAN PABLO TOPILTEPEC: 55 miles west-southwest of Tehuantepec (about 85 miles by trail).

SANTO TOMÁS TEIPAN: 49 miles (about 65-70 miles by trail) west-southwest of Tehuantepec (listed as Teipam on map).

¹Contribution from the Museum of Natural History and Department of Zoology, University of Illinois, Urbana. Received July 26, 1949.

Thorius minutissimus Taylor

"Six topotypic specimens (nos. 3754-59) are from the small, isolated area of cloud forest at Santo Tomás Teipan (cited incorrectly as 'Tecpan (S. Tomás)' on some maps). Two possess two premaxillary teeth penetrating the lip. The largest specimen measures 22 mm from snout to vent. The nostril is relatively small, and the subnarial swelling reduced in all. The chief feature distinguishing this species from *narisovalis* apparently is the markedly greater extent of fusion of the digits. The eyelids are darkened. The number of caudal grooves apparently is not significant; our three specimens with complete tails have 31, 34, and 35 caudal grooves." (Quotation from Taylor, in letter.)

Mabuya mabouya mabouya (Lacépède)

Two adult specimens (nos. 3760-61) are from Nisabibi, both collected on March 25, 1949. The specimens are typical with a dark lateral stripe bordered below by a sharply defined light line, above by a poorly defined light line; one pair of nuchals; 4 supraoculars; fifth supralabial subocular in position; supranasals separated; prefrontals separated; parietals in contact; scales around middle of body 28, 30; scales from chin to vent, 59, 60; toes overlapping when adpressed. The specimens measure 67 and 73 mm, respectively, from snout to vent.

Leiopisma cherriei stuarti (Smith)

A single adult (no. 3762) is from the Pacific slopes of the main ridge of the Sierra Madre between Río Grande and La Gloria, elevation about 3,000 feet, in pine stands. The interparietal is single, the scale rows at midbody 30, the dorsals from parietal to base of tail 69, the tail of a slightly bluish cast. The specimen measures 50 mm from snout to vent, the tail 93 mm.

The dorsal scale count, in which lies the chief difference between *L. c. cherriei* and *L. c. stuarti*, is 69 in this specimen and thus clearly refers the specimen to *L. c. stuarti*, in which the dorsal counts average 69.1 (range 65 to 72). In *L. c. cherriei* the counts average 63.2 and vary from 59 to 67.

This race has not previously been recorded in the state of Oaxaca. The present specimen extends the known range from the foothills of central Veracruz across the Isthmus of Tehuantepec to extreme eastern Oaxaca—a distance of about 300 miles. Although the species was to be expected to

occur in the state of Oaxaca, presumably inhabiting all the foothills from Córdoba, Veracruz, to Palenque, Chiapas (between which localities no specimens have previously been recorded), the subspecific ranges were entirely a matter of conjecture. As a matter of fact the race to be expected in the area represented by the present specimen was *L. c. cherriei*, because of apparently closer zoogeographic affinity of this area and the known limits of the range of the race.

Gymnophthalmus sumichrasti (Cope)

A single, somewhat mutilated adult (no. 3763) is from Escurano. The mental is in contact with two large postmentals, which are broadly in contact medially and followed by a similar pair; 4 supralabials to rear margin of eyes; dorsals 33; scale rows at midbody 13; femoral pores 5-5; 38 mm from snout to vent; tail 61 mm; tail a light tan, body dark brown above.

Heloderma horridum Wiegmann

A single half-grown specimen (no. 3764) is from La Concepción, taken on March 19, 1949. It measures 215 mm from snout to vent, the tail 196 mm. The pattern is typical, predominantly of black but with prominent yellow areas.

Dryadophis melanolomus tehuanae Smith

A single subadult male (no. 3765) is from Cerro Calderona, collected on August 29, 1948. Scale rows 17-17-15; ventrals 181; caudals 109; supralabials 9-9; infralabials 10-10; preoculars 1-1; postoculars 2-2; temporals 1-2 on one side (normal), 2-2 on the other (abnormal, with two tiny upper anterior temporals in succession, bordering above the large lower anterior temporal); total length 805 mm, tail 240 mm.

Drymarchon corais melanurus (Duméril, Bibron, and Duméril)

One specimen (no. 3766), from La Gloria, March 9, 1949, is referred to this subspecies in spite of the fact that it belongs to the wide-ranging "intergrade" populations between *D. c. melanurus* and *D. c. rubidus*. The specimen, a juvenile male, measures 709 mm in total length, the tail 134 mm; scale rows 19-17-15; ventrals 192; caudals 82; supra- and infralabials 8-8; preoculars 1-1; postoculars 2-2; temporals 2 + 2, 2 + 2; antepenultimate labial in contact with temporal.

In spite of the derivation of this specimen from Atlantic slopes where typical *D. c. melanurus* might be expected, the snake appears to agree

perfectly with the so-called intergrades between *D. c. melanurus* and *D. c. rubidus* described by Smith (Journ. Washington Acad. Sci. 31: 476. 1941). The dorsal surface, except on the tail, is relatively light (as in *melanurus*); the first preocular labial (i.e., the third supralabial) possesses a dark posterior border (intermediate); the lateral gulars have slightly darkened tips (as in *rubidus*); many ventrals have a distinct dark posterolateral mark on each side (as in *rubidus*); the light transverse dorsal bands appear to be but one scale wide (as in *rubidus*); the head is light, and the labials appear to be pale brown (as in *melanurus*).

***Ficimia ramírezi*,² n.sp.**

(Fig. 1, right)

Type.—No. 3767, an adult male, collected by Juan Ramírez 1 league north of Niltepec, Oaxaca, March 6, 1949.

Diagnosis.—A member of the genus *Ficimia*, with 20 poorly defined chocolate-brown blotches on back, separated from one another by spaces two to three times their own length, very incompletely bordered with black; no dark markings on head; two internasals; two postoculars; ventrals 136, caudals 38 in single known male.

² Named for Sr. Juan Ramírez, a resident of Tehuantepec, who collected the type and assisted the senior author when visiting the Tehuantepec area nearly 10 years ago and who has for 15 years or more faithfully aided Thomas MacDougall in carrying out intensive field work in the Tehuantepec area.

Description of type.—Rostral large, in contact with frontal, suture with latter one-half maximum width of rostral; internasals well developed, about size of preocular; anterior half of nasal fused with 1st supralabial; prefrontal broadly in contact with second supralabial; 1-1 preoculars; 2-2 postoculars; eye relatively large, its vertical diameter equal to its distance from labial border, its longitudinal diameter one-fourth longer; temporals 1-2, the anterior elongate, the secondaries similar in shape to dorsals; frontal as long as broad, equally as long as its distance from tip of snout; supralabials 7-7; infralabials 7-7, the anterior 3 in contact with chinshields; 1 pair of chinshields.

Dorsals in 17-17-17 rows, smooth even in supraanal area, each with a single apical pit; ventrals 136, caudals 38; total length 325 mm, tail 54.

Hemipenis 10 caudals long, simple and with simple sulcus; 2 large basal spines; spines occupying basal third, becoming smaller distally and merging with calyces; several longitudinal plicae extending through both spinous and calyculate zones.

Dorsal color a light slate; head tan above; 20 light chocolate brown blotches on body, each $1\frac{1}{2}$ to 2 scales in length, 5 to 8 scale rows wide, separated from one another by spaces two to three times as long as the blotches; a very incomplete black border on the blotches; some blotches,

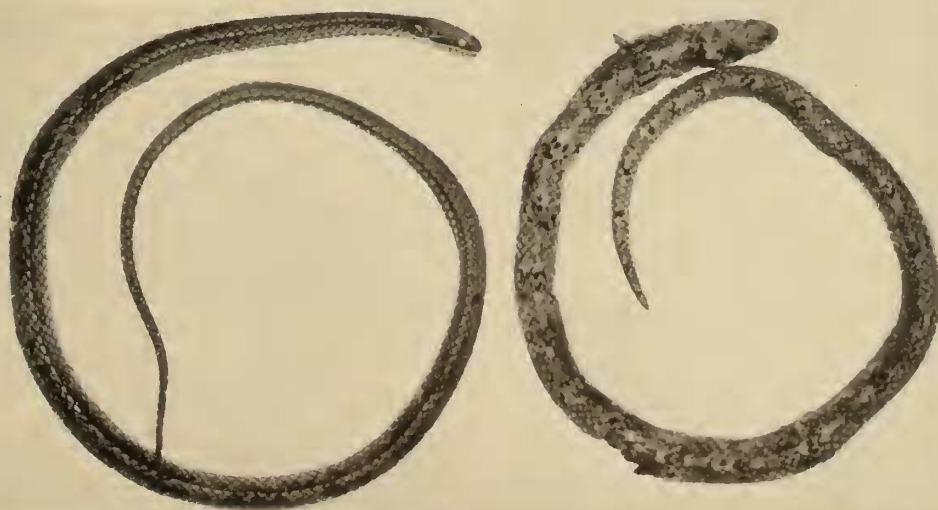


FIG. 1.—Left: *Rhadinaea macdougalli*, n. sp., holotype. Right: *Ficimia ramirezi*, n. sp., holotype.

especially toward rear of body, preceded and succeeded by a small, poorly defined light spot on the midline; a few scattered, dark lateral streaks; median dorsal blotches showing a tendency to have the lateral edges split off (as typical of most species of this genus); 8 dorsal blotches on tail; ventral surfaces immaculate; no markings on head.

Remarks.—The present species differs remarkably in pattern from all other species of the genus. While *publia* is known to have as few as 21 blotches, they are approximately as broad as the interspaces, while in *ramírezi* the anterior blotches are separated by interspaces twice their own length, the interval gradually increasing posteriorly to three times as the blotches decrease in size. This feature of the pattern is not approached by other members of the genus. Other features distinguishing this specimen from *publia* is the absence of lateral blotches and of any pattern on the head.

The derivation of this specimen from an area where *publia* is to be expected casts some doubt upon its validity. Only further specimens can prove beyond reasonable doubt the validity of the supposed species. Certainly a sufficient number of unique features in pattern occur in the type of *ramírezi* to warrant the provisional assumption of the existence of a distinct species.

Ficimia publia publia Cope

Two specimens, the twenty-first and twenty-second known of this subspecies, are available; one (no. 3768) is from La Concepción, collected on March 19, 1949, while the other (no. 3769) is from Portillo Grande, collected on July 26, 1948. Respectively the dorsals are in 18-17-17, 17-17-17 rows; ventrals 154, 137; caudals 35 (♀), 38 (♂); infralabials 8-8, 7-8; temporals 1 + 2, 1 + 2/1 + 1 + 2; spots on body 27, 23; spots on tail 8, 8; total length 262, 199 mm; tail 38, 32 mm. Both agree in having 7-7 supralabials, 1-1 preoculars, 2-2 postoculars, and 1-1 internasals.

Especially noteworthy is the fact that in the specimen with relatively few blotches (23) on the body (21 is the minimum known) the spots are large, well defined, at least a third longer than, and often twice as long as the interspaces; in other words no approach to the condition occurring in *ramírezi*, in which the interspaces are two to three times as long as the blotches, is indicated.

Manolepis putnami (Jan)

A single young female (no. 3770) is from San Pablo Topiltepec, collected early in 1949. It has 19-19-15 scale rows, 181 ventrals, 75 subcaudals, 8-8 supralabials, 10-10 infralabials, 1-1 preoculars, 2-2 postoculars, 1-2-2 temporals, no loreal, total length 256 mm, tail 53 mm.

Pliocercus elapoides elapoides Cope

A single juvenile female (no. 3771), was collected in rain forest between Río Grande and La Gloria (4,000-4,500 feet elevation), March 7, 1949. It has 17-17-17 scale rows, 130 ventrals, 93 caudals, 8-8 supralabials, 9-9 infralabials, 2-2 preoculars, 2-2 postoculars, 7 primary black rings on body (all complete), 5 on tail; total length 200 mm, tail 71 mm. The black borders of the yellow rings are much wider than the yellow rings both on body and tail.

Two unusual features, both in pattern, are noteworthy: (1) a black middorsal band extends the length of each red zone, connecting the two black borders of that zone with each other; and (2) the parietal yellow ring is completely interrupted on the top of the head for a width about equal to that of a frontal. The reduced number of primary rings is likewise very unusual for *e. elapoides*. Despite the magnitude of these discrepancies it is impossible to determine their significance in the absence of further specimens from the Pacific coast and Isthmus areas. The specimen was taken in rain forest very near the crest on the Pacific slope of the Sierra Madre which lies between Río Grande, on the Pacific side, and La Gloria on the Atlantic.

Enulius unicolor (Fischer)

A single adult male (no. 3772) is from the vicinity of Tehuantepec. It has 17 scale rows throughout the length of the body; 174 ventrals, 67 caudals (tail tip missing); 7-7 supralabials; and infralabials; no preoculars; 2-2 postoculars 1-2, 1-2 temporals; snout to vent 220 mm, tail 85 mm (incomplete).

Tantilla rubra Cope

Two specimens are available. One (no. 3773) is a juvenile female from Cerro San Pedro, collected on January 20, 1949, the other an adult male (no. 3774) from Tehuantepec, collected early in 1949. Respectively they have 155, 147 ventrals; caudals 59, 51 +; total length 195 mm,

330 + mm; tail 43 mm, 67 + mm. Both agree in having 7-7 supralabials and infralabials, 1-1 preoculars, 2-2 postoculars, and 1-1 temporals. The two anterior infralabials are in contact medially in each, and the yellow nuchal ring barely involves the tip of the parietals in one, clearly does so in the other. Coloration typical.

Rhadinaea maddougalli,³ n.sp.

Fig. 1, left

Type.—No. 3775, male, collected by Thomas MacDougall on March 7, 1949, near Buena Vista, at crest of Sierra Madre, 4,000-4,500 feet, directly north of Río Grande, Oaxaca.

Diagnosis.—A member of the genus *Rhadinaea*, with 17 scale rows, ventrals about 119, caudals about 75, in males; no supraanal keels; maxillary teeth 16 + 2, with a short but well-defined diastema preceding the two rear teeth; hemipenis capitate, sulcus divided, with about 22 large spines in a belt around the middle, and numerous fine spines to base. Sides below upper part of fourth scale row darker than back, faintly bordered above by a light line; no other stripe on body; head with a light line through the supralabials and another from upper rear margin of orbit to upper edge of last supralabial; belly immaculate except ends of ventrals, which are darker than adjacent dorsal scales.

Description.—Portion of rostral visible from above two-thirds length of median internasal suture; latter entering $2\frac{1}{2}$ times into median prefrontal suture; frontal a little longer than its distance from tip of snout; nasal large, completely divided; loreal square; 3 preoculars and 2 postoculars on each side; temporals 1-2-3; eye large, its longitudinal diameter entering $1\frac{1}{3}$ times in its distance from tip of snout, one-half time in its distance from labial border; 8 supralabials, fourth and fifth entering orbit, seventh largest; 10 infralabials, 5 in contact with anterior chinshields, 2 with posterior; anterior chinshields a little shorter than posterior, the members of each pair in contact throughout their length.

Dorsals in 17 rows throughout body; scales absolutely smooth even in supraanal area, pitless; ventrals 119, subcaudals 75; anal divided.

Maxillary teeth 16 + 2, steadily increasing in size posteriorly to the sixteenth, the anterior one

about two-thirds length of sixteenth; rear two teeth abruptly enlarged one-fourth more than preceding tooth.

Hemipenis single, 8 caudals long, capitate, calyculate, sulcus dividing opposite 6th caudal; a belt of 22 large spines of various sizes around middle third of hemipenis, below calyces; numerous minute spines on basal third of hemipenis, which appears to be provided with longitudinal ridges; some minute spines also scattered among large spines.

Total length 294 mm; tail 106 mm.

Dorsal color a nearly uniform dull, dark brown; edges of each scale darker than middle; sides a little darker than middorsum, the darker color abruptly terminating at a moderately distinct black line on upper part of fourth scale row; centers of scales in fifth scale row not as dark but lightly stippled, giving the effect of a faint light line; rest of dorsum uniform. Head light brown above, little stippled with darker; a sharply defined white line extending from upper rear corner of eye through temporals to upper edge of last supralabial, there abruptly terminating, partly on the labial and partly on the scale immediately above; another white line through rostral and across upper edges of the fifth and preceding supralabials, through the middle of the sixth, barely involving the anteroventral corner of the eighth, where it ends at the lip; both white stripes bordered by broad black lines, continuous except for that below the supralabial line which is interrupted at each labial suture, producing the effect of a row of spots on the lower edges of the labials, one spot to each scale. Dorsolateral light line of body rather distinct as it nears head, curving laterally toward temporal stripe, but terminating abruptly in a rounded, black-edged, small expansion which fails to reach the end of the temporal stripe by two scale lengths; a dark spot on each of the anterior four infralabials, two on the mental, and one on each anterior chinshield at its anterior end; a few flecks in lateral gular region. Ventrals and subcaudals entirely immaculate, white, except the extreme lateral ends which anteriorly are black tipped, elsewhere brown as the sides of the body and tail.

Remarks.—The relationships of this distinct species are difficult to determine. Of the Mexican species now known only the recently described *R. marcellae* Taylor (Univ. Kansas Sci. Bull. 33: pt. 1 (2): 197, 1949) appears to be related. None

³ Named for Thomas MacDougall, collector, who for 10 years has assisted the senior author to become acquainted with the Tehuantepec area.

of the Central and South American species appear the same. Taylor's species, based upon a male (Taylor, correspondence) possesses only 2 preoculars, a nuchal collar, a dorsal scroll-like pattern on the head, only 4 infralabials touching anterior chinshields, 8-9 infralabials, a quadrangular loreal, etc. (in *macdougalli*, 3 preoculars, no nuchal collar, no scroll-like pattern on head, 5 infralabials touching anterior chinshields, 10 infralabials, a square loreal). These differences

are relatively minor, and point toward a close relationship between *marcellae* and *macdougalli*. In a way the two species seem somewhat intermediate between the isolated *decorata* and the *taeniata*-*quinquelineata* groups, having the low ventrals and certain features of the dorsal pattern of the former, but the low caudals and certain features of the head pattern of the latter. The species are not related, apparently, to the enigmatical *Erythrolamprus mentalis* Werner, which



FIG. 2.—*Upper left*: Dry Pacific (southern) slopes of the Sierra Madre north of Nilttepec, Oaxaca, on the trail from Río Grande to La Gloria, looking eastward toward Cerro Atravesado, which extends in a north-south direction. *Upper right*: View toward east, paralleling the Sierra Madre, from La Gloria. *Lower left*: View toward south from Santa María Chimalapa, on the Río Coatzacoalcos and not far from La Gloria; the Sierra Madre is in the distance, the highest peak (just to the right of which the Río Grande-La Gloria trail crosses) slightly to right of center. *Lower right*: Northern slope of the Sierra Madre north of Nilttepec on the trail from Río Grande to La Gloria. Photos courtesy of Thomas MacDougall.

TABLE 1.—VARIATION IN *LEPTODEIRA MACULATA*

No.	Sex	Scale rows	Ventrals	Caudals	Supra-labials	Infrac-labials	Pre-oculars	Post-oculars	Dorsal and caudal blotches	Total length	Tail length
										<i>Mm</i>	<i>Mm</i>
3781	♂	21-23-17	174	72	8-8	9-9	1-2	2-2	26+12	525	109
3782	♂	19-23-17	174	—	8-8	10-10	2-2	2-2	27+—	450+	47+
3780	♂	21-23-17	176	71	8-8	10-10	2-2	2-2	29+—	535	113
3779	♂	21-23-17	170	71	9-9	10-10	2-2	2-2	29+13	508	109
3786	♂	21-22-17	173	—	8-8	10-10	—	—	28+—	419	74
3784	♂	21-23-17	176	71	8-8	10-10	2-2	2-2	29+—	535	113
3783	♀	23-25-17	177	66	8-8	10-10	2-2	2-2	31+13	395	80
3785	♀	23-25-17	172	67	—	—	2-2	2-3	29+12	362	74

has 147 ventrals, 1 preocular and a very different color pattern.

Coniophanes imperialis copei Hartweg and Oliver

A single specimen (no. 3776) is from La Finca (Tehuantepec), collected on April 2, 1949. It is a typical subadult female measuring 231 mm snout to vent (tail broken); scale rows 19-19-17; ventrals 130; supralabials 8-8; infralabials 9-9; preoculars 1-1; postoculars 2-2; temporals 1-2, 1-2. The dorsal stripe is very narrow and continuous, and the lateral dark stripe is distinctly darker on its upper half.

Coniophanes fissidens fissidens (Günther)

One specimen (no. 3777) is from La Gloria. It is a subadult male with anal ridges; scale rows 21-21-17; ventrals 126; caudals 78; supralabials 8-8; infralabials 10-10; preoculars 1-1; postoculars 2-2; temporals 1-2, 1-2; 435 mm total length; 137 mm tail length. Generally one, occasionally 2 distinct dark spots, about 0.5 mm in diameter, at end of each ventral and on each subcaudal; no dark dorsal spots such as occur in *C. f. punctigularis*; median dark border of dorsolateral light stripes confined to tail, not present on rear part of body; whitish portion of dorsolateral light stripes back of head relatively short, little more than twice length of head.

This subspecies has never before been recorded from the state of Oaxaca, although its occurrence in this poorly known, humid Atlantic exposure was to be expected. The specimen definitely does not agree with others (*Mus. Comp. Zool.* nos. 27702-18, *C. f. dispersus*) from Tapanatepec on the Pacific slopes of the Isthmus only 40 miles distant. The two localities, however, are in very markedly different zoogeographic areas.

Imantodes splendidus oliveri Smith

One female (no. 3778) is from Nisabibi, collected on March 25, 1949, and another female (no. 4001) is from Tehuantepec. Respectively they have 17-17-16, 17-17-17 scale rows; 220, 230 ventrals; 121, 129 caudals; 9-9, 8-8 supralabials; 10-10, 10-? infralabials; 1-1 preoculars, 2-2 postoculars, 1-2 temporals; supralabials 4-5-6, 3-4-5 entering orbit; 57, 59 bands on body; all bands broken laterally except on anterior third, two-fifths of body; total length 431, 440 mm; tail 113, 120 mm.

Leptodeira maculata (Hallowell)

Eight specimens are in the collection. Two (nos. 3779-80) are from Nisabibi, four (nos. 3781-4) from Tehuantepec, one (no. 3785) from Cerro Santa Lucía, and one (no. 3786) from Cerro Calderona. Variation in certain characters is given in Table 1.

Leptodeira mystacina Cope

Two adult females are available: No. 3787, from Esecurano, collected on July 30, 1948, and no. 3788, from La Concepción, collected on March 18, 1949. Respectively the ventrals are 192, 186; subcaudals 64-61; supralabials 7-8, 8-8; infralabials 9-10, 10-10; dorsal bands 11, 13 on body, 5, 5 on tail. Both agree in having 19-19-17 scale rows, 1-1 preoculars, 2-2 postoculars, 1 + 2 temporals.

Stenorrhina freminivillii freminivillii Duméril, Bibron, and Duméril

Two specimens are in the collection: No. 3789 from Esecurano, March 9, 1949, and no. 3790 from Cerro San Pedro, January 13, 1949. Respectively, ventrals are 171, 166; subcaudals 32, 44; tem-

porals 2 + 2 (anomalous), 1 + 2; total length 430, 170 mm; tail length 54, 25 mm. Both agree in having 7-7 supralabials and infralabials, 1-1 loreals, 1-1 preocular, 2-2 postoculars, 17 scale rows throughout length of body, anterior half of nasal fused with internasal. Despite the great difference in size between the specimens, the coloration is virtually identical and is indicated as essentially constant throughout life. The body is salmon-pink above, a little lighter below; a very faint middorsal dark streak in the adult, well defined and one-half a scale row wide in the juvenile; a dark line through eye, faintly continued along sides between the third and fourth scale rows.

Micrurus ephippifer Cope

Two specimens are in the collection. One is a typical female (no. 3791) from La Concepción, collected March 20, 1949. It measures 470 mm in total length, the tail 53 mm (ratio, tail to total length, 0.113); scale rows 15-15-15; ventrals 221; caudals 42; supralabials 7-7; infralabials 6-6; preoculars 1-1; postoculars 2-2; temporals 1-1, 1-1; primary black rings on body 22, on tail 5 (not counting black tip); red zones replaced by black on most of dorsal scale rows, ventrally to the first scale row or edge of ventrals; ventrals rather extensively marked with black in red zones, so that from one-half to one-sixth the area is occupied by black in any one zone; red zones 2-7 ventrals long, usually 4; yellow rings 1 or 2 ventrals long, usually 1; black rings 4-5 ventrals long, usually 4; black nuchal ring extending 6 scale lengths back of parietals, the posterior tips of which are involved; yellow parietal ring not reaching anterior edge of parietals, barely touching posterior tip of frontal; red rings usually forming a very narrow fringe in front of and behind the black dorsal blotch.

The other specimen (no. 3792) is an adult male from Nisabibi, collected on March 28, 1949. It is most extraordinary in the great reduction in number of all rings, and the restriction of the dorsal black blotches of the red rings to the area between the third, fourth, or fifth scale row of

each side. The scale rows are 15-15-15 and without any evidence whatever of supra-anal tubercles or keels; ventrals 218; caudals 56; supralabials 7-7; infralabials 6-6; preoculars 1-1; postoculars 2-2; temporals 1-1, 1-1; black rings on body 13, on tail 4 (not counting black tip); total length 695 mm, tail length 105 mm (ratio tail to total length, 0.151). Yellow rings relatively wide, as frequently 2 ventrals long as 1; black rings 5-7 ventrals long, usually about 6; red rings 8-10 ventrals long, usually 9; black dorsal saddles in red rings 7 scales in length on anterior half of body, 6 on posterior half, completely interrupting red rings anteriorly but failing to do so on posterior half of body; half of black saddles extending laterally onto fourth scale row, half only onto fifth; nuchal black ring covering 9 scale lengths, barely touching posterior tips of parietals; each red ring with a few small scattered black flecks both above and below.

The aberrant specimen possesses fewer black rings (13) on the body than any other specimen reported. The nearest approach is a record (Woodbury and Woodbury, Journ. Washington Acad. Sci., 34: 371. 1944) of a specimen with 16 black rings. The low number is not sexually significant, as a male from Llano Ocotal (EHT no. 27533) possesses 21 black rings. Other specimens have been reported with from 18 to 23 black rings. While the indicated range of variation, 13 to 23, is extraordinarily large, it is matched by another species, *M. nigrocinctus browni*, in which the range is 11 to 24.

In view of (1) the absence of differences other than pattern from more typical *M. ephippifer*; (2) the existence of at least one intermediate of 16 between the extremes of 13 and 18-23 of the counts for black rings; (3) the derivation of the questioned specimen from the same area from which more typical *M. ephippifer* has been obtained; and (4) the occurrence of an even greater range of variation in black-ring count in at least one other species of the genus than would be obtained by placing this specimen with *M. ephippifer*, we regard it highly improbable that the present specimen represents a species other than *M. ephippifer*.